

VU Research Portal

Time crawls when you're not having fun: Feeling entitled makes dull tasks drag on

O'Brien, E.H.; Anastasio, P.A.; Bushman, B.J.

published in

Personality and Social Psychology Bulletin
2011

DOI (link to publisher)

[10.1177/0146167211408922](https://doi.org/10.1177/0146167211408922)

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

O'Brien, E. H., Anastasio, P. A., & Bushman, B. J. (2011). Time crawls when you're not having fun: Feeling entitled makes dull tasks drag on. *Personality and Social Psychology Bulletin*, 37(10), 1287-1296.
<https://doi.org/10.1177/0146167211408922>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

Personality and Social Psychology Bulletin

<http://psp.sagepub.com/>

Time Crawls When You're Not Having Fun : Feeling Entitled Makes Dull Tasks Drag On

Edward H. O'Brien, Phyllis A. Anastasio and Brad J. Bushman

Pers Soc Psychol Bull 2011 37: 1287 originally published online 12 May 2011

DOI: 10.1177/0146167211408922

The online version of this article can be found at:

<http://psp.sagepub.com/content/37/10/1287>

Published by:



<http://www.sagepublications.com>

On behalf of:



[Society for Personality and Social Psychology](#)

Additional services and information for *Personality and Social Psychology Bulletin* can be found at:

Email Alerts: <http://psp.sagepub.com/cgi/alerts>

Subscriptions: <http://psp.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://psp.sagepub.com/content/37/10/1287.refs.html>

>> [Version of Record](#) - Sep 2, 2011

[OnlineFirst Version of Record](#) - May 12, 2011

[What is This?](#)

Time Crawls When You're Not Having Fun: Feeling Entitled Makes Dull Tasks Drag On

Personality and Social Psychology Bulletin
37(10) 1287–1296
© 2011 by the Society for
Personality and Social Psychology, Inc
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0146167211408922
http://pspb.sagepub.com



Edward H. O'Brien¹, Phyllis A. Anastasio², and Brad J. Bushman^{3,4}

Abstract

All people have to complete dull tasks, but individuals who feel entitled may be more inclined to perceive them as a waste of their “precious” time, resulting in the perception that time drags. This hypothesis was confirmed in three studies. In Study 1, participants with higher trait entitlement (controlling for related variables) thought dull tasks took longer to complete; no link was found for fun tasks. In Study 2, participants exposed to entitled messages thought taking a dull survey was a greater waste of time and took longer to complete. In Study 3, participants subliminally exposed to entitled words thought dull tasks were less interesting, thought they took longer to complete, and walked away faster when leaving the laboratory. Like most resources, time is a resource valued more by entitled individuals. A time–entitlement link provides novel insight into mechanisms underlying self-focus and prosocial dynamics.

Keywords

time perception, entitlement, self-focus, decision making, emotion

Received September 28, 2010; revision accepted March 21, 2011

Ticking away the moments that make up a dull day, fritter
and waste the hours in an offhand way.

—Pink Floyd

Time you enjoy wasting, was not wasted.

—John Lennon

For some, a dull moment can seem like an eternity, whereas for others there is no such thing as a dull moment. Recall an all-too-familiar example: one colleague who complains incessantly of busywork and routine office tasks that waste valuable time versus another colleague who approaches the same tasks with vigor and excitement. What psychological factors might explain why some people drag along to the beat of Pink Floyd, but others are driven by the beat of John Lennon?¹

An array of individual differences account for such varied attitudes toward the passing of time. For instance, people with greater capacities for attention and engagement (Block & Zakay, 1997), novelty (Danckert & Allman, 2005), impulsivity (Van den Broek, Bradshaw, & Szabadi, 1992), and present-oriented hedonistic values that enable *flow* (Zimbardo & Boyd, 1999; see Csikszentmihalyi, 1997) all perceive time as passing more quickly than others. There are also distinct

situational influences on temporal experience, ranging from the speeding effects of alcohol and caffeine (Terry, Doumas, Desai, & Wing, 2009) to the slowing effects of social rejection and exhausted cognitive energy (Twenge, Catanese, & Baumeister, 2003; Vohs & Schmeichel, 2003; respectively). Still other broad factors can affect time perception, such as age (e.g., time moves faster for older people; Draaisma, 2006), body temperature (e.g., hotter body temperatures accelerate the passage of time; Wearden & Penton-Voak, 1995), and geographical location (e.g., general pace of life is quicker in cities than in more rural areas; Levine, 1997).

These factors shed some light on the psychological influences on time perception, but they all overlook a potentially important dimension: the general degree to which people view and value themselves over others. Time is a resource,

¹University of Michigan, Ann Arbor, MI, USA

²Saint Joseph's University, Philadelphia, PA, USA

³Ohio State University, Columbus, OH, USA

⁴VU University, Amsterdam, Netherlands

Corresponding Author:

Edward H. O'Brien, University of Michigan, Department of Psychology,
Institute for Social Research, 426 Thompson Street, Ann Arbor, MI 48106
Email: obrieneh@umich.edu

indeed, “the most precious of all resources” and “surely the least replaceable” (Levine, 1997, p. 37). Thus, if some people hold themselves in particularly high regard and as more important than others, they might also be more determined to spend this “precious” resource in ways that mostly benefit themselves. In other words, a person’s degree of self-focus might manifest as a slow or quick perception of time for certain tasks, particularly for dull tasks (“I am wasting my precious time” vs. “This is time well spent”). As demonstrated by our example about coworkers, such differing attitudes toward time are common in everyday life, but they have not been empirically tested in relation to self-focus. The goal of the present research was to examine whether degree of self-focus is indeed a novel and important psychological factor that may help explain differences in time perception.

Measuring Self-Focus: Psychological Entitlement

Psychological researchers define and measure “self-focus” in a wide variety of ways. Although constructs such as narcissism, self-esteem, and the positivity bias have drawn much attention in recent years (see Trzesniewski & Donnellan, 2010; Twenge & Campbell, 2010), the current research focuses specifically on the psychological sense of *entitlement*: the feeling that one is more deserving than others (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004). In short, entitled people feel they are more deserving than others of all the good things in life; they believe they are special people who deserve special treatment (Zitek, Jordan, Monin, & Leach, 2010). As such, entitled people think they are more deserving *of resources* than others (e.g., status, material gain), regardless of the amount of effort put toward gaining those resources (an “all play and no work” worldview; Twenge & Campbell, 2009). Thus, we chose to measure self-focus via entitlement because it best fits our model of time as a valued resource. If entitled people approach other resources with inflated regard, perhaps they also view the resource of time with inflated regard—which, we predict, may manifest as the perception that time drags while completing dull tasks.

Psychological entitlement is not viewed as a clinical disorder; it is found in varying degrees in all people and is unrelated to social desirability (Campbell et al., 2004, Study 2). Entitlement has usually been viewed as a stable personality trait. However, there is reason to believe it can also be viewed as a psychological state, although it has not been situationally manipulated in prior research. For example, advertisements and media that promote an inflated sense of self-worth may create a sense of entitlement (Ritchel, 2010; Twenge, 2006). Celebrity role models who endorse materialistic or selfish values may also create a sense of entitlement (Giles & Maltby, 2004).

Entitled attitudes and behaviors are readily demonstrated by anecdotal evidence: for instance, students who think they

deserve A grades regardless of their effort or performance on assignments, young employees who expect the same treatment and benefits as their veteran coworkers before “paying their dues,” and relationship partners who expect to be treated especially well with no consideration of how well they treat others. Empirical research confirms that highly entitled individuals differ from less entitled individuals in several ways. In laboratory studies, for example, highly entitled individuals are more aggressive when insulted (Campbell et al., 2004; Konrath, Bushman, & Campbell, 2006), more competitive (Campbell, Bush, Brunell, & Shelton, 2005), less forgiving (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004), and even more likely to take candy away from young children (e.g., Campbell et al., 2004, Study 5) than are less entitled individuals.

Although no previous research has directly examined the relationship between self-focus and time perception, two studies are relevant to our hypothesis that entitled people may perceive time as dragging while performing potentially dull tasks. One study found a negative correlation between entitlement and a social responsibility scale that measured one’s desires and plans to become involved in community activities (Watson & Morris, 1991). Another study found that highly entitled parents dropped out of a parenting class significantly more quickly than others (Snow, Kern, & Curlette, 2001). The results of both studies may be explained by our hypothesis that entitled people view such activities as dull, thus slowing the perception of time and increasing the perception of these activities as wasting their “precious” time.

Overview

Although time is constant and dispersed equally to all people, *perceptions* of time are remarkably plastic and vary greatly across individuals and circumstances (Eagelman, 2008; Hancock & Rausch, 2010; Levine & Norenzayan, 1999).

We propose that the psychological sense of entitlement is one factor that might account for differing perceptions of time, as people who feel entitled desire the most valuable resources for themselves and time is such a valuable resource. In other words, feeling a sense of entitlement may affect time perception by influencing people to view their time as particularly valuable, just as entitled people view other valuable resources with an inflated regard. Thus, entitled people may perceive time as dragging while performing dull tasks. To be certain, time is the *only* resource that can never be replenished once spent, and so some people might be especially guarded in how their time is used. As Napoleon once quipped, “You can ask me for anything you like—except my time” (Kiley, 2005). Of course, Napoleon also seemed to have a strong sense of entitlement, as reflected in his infamous statement, “France has more need of me than I have need of France.”

In the present research, we tested our hypothesis by first assessing time perception while performing dull versus fun

tasks among individuals with varying levels of trait entitlement (Study 1). Although we predicted a relationship between entitlement and time perception of dull tasks only, we included fun tasks as a comparison. After finding no significant predictors of time estimates for fun tasks, Studies 2 and 3 focused specifically on time perception of dull tasks: among individuals *explicitly* primed with entitled versus neutral messages (Study 2) and among individuals *subliminally* primed with entitled versus neutral words (Study 3).

We sought to demonstrate the robustness of this time–entitlement link by using a variety of time-related dependent measures, ranging from self-reported attitudes and evaluative judgments to raw estimations of elapsed time to actual behavior. We predicted that entitlement, whether measured as a personality trait or experimentally manipulated as a psychological state, would influence people to view time as dragging while completing dull tasks.

Study 1

Study 1 examined the link between time perception and entitlement as a personality trait. Participants who had completed the Psychological Entitlement Scale (Campbell et al., 2004) approximately 1 month earlier rated how much time had passed while performing either a dull or a fun laboratory task. We predicted that entitlement would be related to the perception that time drags while completing dull tasks. We predicted no relationship between entitlement and time perception for fun tasks since neither entitled nor nonentitled people should perceive time spent having fun as wasted or as dragging (see Sackett, Nelson, Meyvis, Converse, & Sackett, 2010). By including a fun condition, however, we were able to directly compare dull tasks to fun tasks and also explore whether entitlement may be related to fun tasks in unexpected ways (i.e., entitled people may perceive fun tasks as passing more quickly than others).

Importantly, we controlled for several factors that might also be related to entitlement and time perception, such as subjective ratings of the task, time urgency, mood, sensation seeking, status, and power. We wanted to test the link between entitlement and time perception above and beyond the influence of these other factors.

Method

Participants. Participants were 50 college students (88% female) who received course credit.

Psychological entitlement. About a month before the experiment, participants completed the reliable and valid nine-item (e.g., “If I were on the Titanic, I would deserve to be on the *first* lifeboat!”) Psychological Entitlement Scale (Campbell et al., 2004) as part of a battery of tests given in mass testing sessions. Items were scored on a 7-point scale (1 = *strong disagreement* to 7 = *strong agreement*) and summed to form an overall measure of entitlement (Cronbach’s $\alpha = .83$; $M = 28.58$, $SD = 9.03$).

Procedure. Participants were told that the researchers were studying personality and performance on tasks involving letters. There were no clocks in the room, and participants removed watches and cell phones (presumably to avoid distractions). By the flip of a coin, they were randomly assigned to complete a fun or dull task (Sansone, Weir, Harpster, & Morgan, 1992). Both tasks contained a 21×11 matrix of random uppercase and lowercase letters. The dull task involved reproducing the matrix, whereas the fun task involved using the same letters to form people’s first names in English (e.g., *Linda*, *Mark*, *Tam*). The experimenter gave them exactly 10 minutes to work on the task but did not tell them how much time had passed. Participants then estimated the number of minutes they spent working on the task. Next, they rated how fun and interesting the task was (1 = *not at all* to 7 = *extremely*). They also rated their current mood (1 = *extremely negative* to 7 = *extremely positive*). We expected the fun task to be rated more fun and interesting than the dull task. We also expected participants who completed the fun task to be in a better mood than participants who completed the dull task. Task ratings and mood were also used as covariates when examining the relationship between entitlement and time perception.

Additional covariates included other individual differences that may be related to entitlement and time perception. Time urgency was measured using the reliable and valid three-item (e.g., “Do you feel that you have enough time to do what you need to do in an average day?”) Time Urgency Scale (Blatchley et al., 2007). Items are scored using a 5-point scale (1 = *not at all* to 5 = *very much so*) and summed to form a composite measure (Cronbach’s $\alpha = .70$; $M = 11.16$, $SD = 2.17$). Busyness was measured using a single item: “How busy is your life at the moment?” (1 = *not at all* to 7 = *extremely*). These two measures were included because previous research has shown that a sense of time urgency can influence time perception (Gastorf, 1980). We also wanted to control for people who may simply be busier than others.

We also controlled for sensation seeking because individuals high in sensation seeking may perceive time differently because they like exciting and adventurous tasks over dull and routine tasks. Sensation seeking was measured using the reliable and valid eight-item (e.g., “I would like to explore strange places”) Sensation Seeking Scale (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002). Items are scored using a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*) and summed to form a composite measure (Cronbach’s $\alpha = .45$; $M = 26.96$, $SD = 3.88$).

Status and power might also be related to feelings of entitlement (e.g., people who feel their time is valuable might actually have better or more important things to do with their time than others), so we wanted to control for these variables. Although all participants were undergraduate students, they differed in terms of how wealthy their families were. Wealthy individuals tend to have higher status in society than less wealthy individuals (Oakes & Rossi, 2003). Thus, participants

reported annual family income using a 10-point scale (1 = \$50,000 or less, 2 = \$50,000 to \$75,000, 3 = \$75,000 to \$100,000, 4 = \$100,000 to \$125,000, 5 = \$125,000 to \$150,000, 6 = \$150,000 to \$175,000, 7 = \$175,000 to \$200,000, 8 = \$200,000 to \$225,000, 9 = \$225,000 to \$250,000, 10 = \$250,000 or more). Power was measured using the reliable and valid eight-item (e.g., "I can get people to listen to what I say") Sense of Power Scale (Anderson & Galinsky, 2006). Items are scored using a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*) and summed to form a composite measure (Cronbach's $\alpha = .83$; $M = 39.02$, $SD = 6.46$).

The order of the covariates was counterbalanced. A debriefing followed. No participants guessed the hypothesis being tested or reported being suspicious.

Results

Preliminary analyses: Gender differences. There were no main or interactive effects involving gender, so the data from men and women were combined.

Preliminary analyses: Manipulation check. As expected, the fun task was rated to be more fun than the dull task, $M_s = 4.25$ ($SD = 1.37$) and 2.80 ($SD = 1.45$), respectively, $F(1, 48) = 12.54$, $p = .001$, $d = 1.02$. The fun task was also rated to be more interesting than the dull task, $M_s = 4.25$ ($SD = 1.62$) and 2.97 ($SD = 1.47$), respectively, $F(1, 48) = 8.42$, $p = .006$, $d = 0.84$. In addition, participants who completed the fun task were in a better mood afterward than those who completed the dull task, $M_s = 4.80$ ($SD = 0.77$) and 4.07 ($SD = 0.91$), respectively, $F(1, 48) = 8.83$, $p = .005$, $d = 0.86$.

Primary analyses. Data were analyzed using multiple regression analysis. The predictors were task type (fun vs. dull) and the interaction term between task type and entitlement; the amount of time estimated for completing the task was the predicted variable. To reduce multicollinearity, entitlement scores were mean centered (Aiken & West, 1991). The only significant effect was the predicted interaction between type of task and psychological entitlement, $t(46) = 2.73$, $p = .009$. Thus, we ran separate analyses for the dull and fun tasks.

Primary analyses: Dull task. As predicted, there was a significant positive relationship between scores on the Psychological Entitlement Scale and estimates of how much time had passed while completing the dull task, $t(28) = 2.50$, $p = .02$, $b = 0.096$, $r = .43$. This relationship remained significant even after controlling for all covariates (i.e., fun ratings, interesting ratings, mood, busyness, time urgency, sensation seeking, status, power), $t(20) = 2.67$, $p = .02$, $b = 0.123$, $r_{\text{partial}} = .51$. None of the covariates were significant.

Primary analyses: Fun task. There was no significant relationship between scores on Psychological Entitlement Scale and ratings of how much time passed while completing the fun task, either with entitlement as the sole predictor or with the all the covariates in the model, $t(18) = -1.44$, $p = .17$, $b = -0.075$, $r = -.32$ and $t(10) = -1.42$, $p = .19$, $b = -0.106$,

$r_{\text{partial}} = -.41$, respectively. None of the covariates were significant.

Discussion

As expected, time spent performing dull tasks seemed to crawl for more entitled individuals. This relationship remained significant even after controlling for a variety of variables that also could be related to time perception. Of all the variables measured, the only significant predictor of time spent completing the dull task was entitlement. In contrast, we found no significant relationship between entitlement and time spent completing the fun task. Indeed, none of the measured variables were significantly related to how time passed for the fun task.

Study 1 reveals that there is a time–entitlement link and that this link is specific to dull tasks: When entitled people are not having fun, time seems to crawl. Since fun tasks may be equally beneficial for entitled and nonentitled individuals (i.e., having fun may always be construed as time well spent), perhaps there are other factors that better predict time estimates for fun tasks (e.g., novelty preference). However, in the current article we are interested specifically in the link between time perception and entitlement. Thus, Studies 2 and 3 focus on how entitlement influences time perception specifically while performing dull tasks.

Study 2

The purpose of Study 2 was to extend the findings of Study 1 by examining whether entitlement as a manipulated variable could also change the perception of time for dull tasks. Participants completed a dull survey after being explicitly exposed to a self-focused, entitlement-related prime or a neutral prime. We predicted that those exposed to the entitlement-related prime would perceive the survey as slower and duller than those exposed to the neutral prime.

Study 2 is a notable extension of Study 1 for at least three reasons. First, it is the first research we know of that has attempted to manipulate entitlement as a psychological state. Second, messages of narcissism, entitlement, and related self-promoting attitudes are increasingly pervasive in the environment (e.g., Twenge, 2006), and so it is critical to test the robustness of our time–entitlement link with a situational manipulation that reflects real-world settings. Indeed, entitled self-focused messages pervade domains such as advertising (Pollay, 1986), ranging from the McDonald's "you deserve a break today" jingle in the early 1970s to L'Oreal's "because you're worth it" slogan. Third, we included a possible mediator of the link between entitlement and time perception: We asked participants to evaluate whether the task wasted their time. We hypothesized that entitled people would view dull tasks as a waste of their time and that these views, in turn, would influence the perception that time drags while performing dull tasks.

Method

Participants. Participants were 65 college students (63% female) who received course credit.

Procedure. Participants were told that the researchers were studying student life. They completed a 27-item survey that included mundane items such as “What is your favorite day of the week?” and “How often do you eat fast food?” Participants were randomly assigned to an entitled or control condition. In the entitled condition, each participant was told that the purpose of the survey was to “gain a better understanding of your own personal opinions and preferences” because “you’re entitled to the best possible experiences here on campus.” In the control condition, each participant was told that the purpose of the survey was to “gain a better understanding of the opinions and preferences of the current student body” because the university wanted to “assess the opinions and preferences of all students.” The last item of the survey was, “In your honest opinion, do you think this survey was a waste of your time?” (1 = *not at all a waste of my time!* to 7 = *huge waste of my time!*). Participants also estimated, in minutes, how long they thought the survey took to complete. There were no clocks in the room, and participants removed watches and cell phones (presumably to avoid distractions).

As a manipulation check at the end of the survey, participants indicated what set of instructions they had received: entitled instructions, control instructions, or bogus unused instructions (i.e., “This survey is designed to assess gender differences in perceptions of campus life”; thus, if participants chose this unseen condition or an inconsistent condition, they could be eliminated from analysis). A debriefing followed. No participant guessed the hypothesis being tested or reported being suspicious.

Results

Preliminary analyses: Gender differences. There were no main or interactive effects involving gender, so the data from men and women were combined.

Preliminary analyses: Manipulation check. A total of 3 participants who chose instructions inconsistent with their condition were deleted. The final sample consisted of 62 participants (27 in the entitled group, 35 in the control group).

Primary analyses. As predicted, participants in the entitled group thought the survey took more time to complete than did those in the control group, $M_s = 11.07$ ($SD = 5.95$) and 8.26 ($SD = 4.55$) minutes, respectively, $F(1, 60) = 4.47$, $p = .039$, $d = 0.55$. This effect remains nearly identical when controlling for the actual amount of time spent on the survey, $F(1, 59) = 4.83$, $p = .032$, $d = 0.53$. In addition, participants in the entitled group thought the survey was a greater waste of their time than did those in the control group, $M_s = 4.22$ ($SD = 1.53$) and 2.83 ($SD = 1.67$), respectively, $F(1, 60) = 11.41$, $p < .001$, $d = 0.87$.

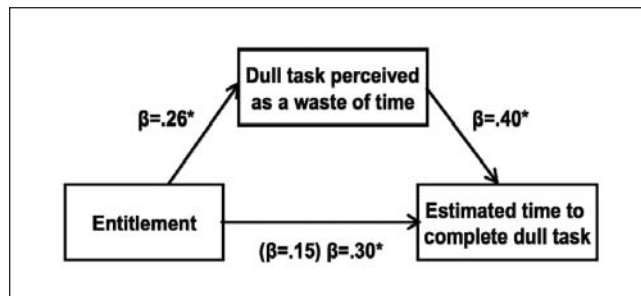


Figure 1. Results of multiple regression analyses with entitlement as the independent variable (1 = entitled, 0 = control), perceiving the dull survey as a waste of time as the mediator (Time 2–Time 1), and estimates of how long the survey took to complete as the dependent variable

The β in parentheses was obtained from a model that included both the independent variable and mediator as predictors of the dependent variable.

* $p < .05$.

Mediation analysis. As predicted, perceptions of wasted time mediated the effect of entitlement on estimates of how long it took to complete the survey (see Figure 1). The results from the Baron and Kenny (1986) regression analyses were as follows. As required for mediation, entitlement (independent variable) was significantly related to time estimates (dependent variable) and to wasted time perceptions (mediator). Wasted time perceptions were also significantly related to time estimates, even after controlling for entitlement. In addition, the link between entitlement and time estimates became nonsignificant after controlling for wasted time perceptions. The indirect effect of entitlement on time estimates, through wasted time, was significant (95% bootstrap confidence interval = -1.76 to -0.11 , which excludes the value 0; see Preacher & Hayes, 2004).

Discussion

The findings from Study 2 replicate and extend those from Study 1. Participants explicitly primed with entitled messages perceived a routine survey as a greater waste of time and as taking longer to complete than did participants primed with neutral messages. Moreover, we found that the time–entitlement link in Study 2 was fully mediated by perceptions of wasted time: Consistent with our theory, dull tasks crawl for entitled people because they view them as a waste of time.

In addition, Study 2 demonstrates that feelings of entitlement can be primed by related external messages that promote the self (i.e., “because you’re entitled . . .”) as well as stem from personality traits. This finding has particular relevance in light of the pervasiveness of entitled and self-promoting messages in the social environment, such as praising parenting style (Horton, Bleau, & Drwecki, 2006), social media such as YouTube and Facebook (Buffardi & Campbell, 2008), and self-focused advertisements (Pollay, 1986).

Study 3

Situational messages of entitlement might often go unnoticed because of their widespread occurrence and therefore may affect people on more subtle levels (see Bargh & Morsella, 2008; Vohs, Meade, & Goode, 2008). Thus, Study 3 further tested the effect of situational entitlement on time perception by using *subliminal* rather than *supraliminal* primes. These subliminal primes allowed us to circumvent any potential demand characteristics of Study 2. Importantly, Study 3 further extended the findings from Studies 1 and 2 by including an actual measure of behavior.

Participants in Study 3 were randomly, subliminally exposed to entitlement words (e.g., *SPECIAL*) or to neutral words (e.g., *WATER*) in a vigilance task. We predicted that those subliminally exposed to entitlement-related primes would perceive the experimental task as taking longer, and as duller, than those subliminally exposed to neutral primes, demonstrated by two new time-related variables not tested in Study 1 or Study 2: ratings of whether time flew or crawled and evaluative judgments of how interesting the task was. Most importantly, Study 3 included a measure of time-related behavior: walking speed. Walking speed has been an effective dependent measure on subliminal priming tasks in previous research (e.g., Bargh, Chen, & Burrows, 1996). Although somewhat exploratory, we believed walking speed was an appropriate behavioral variable for Study 3 because it is (a) simple, easy, and unobtrusive, (b) a real-world behavior that occurs constantly, and, most importantly, (c) a behavior that is directly associated with time, such that a person can spend as much or as little time as he or she desires by adjusting his or her walking speed. Because of the dull nature of the tasks, we predicted that participants subliminally primed with entitlement words would walk *faster* than participants subliminally primed with neutral words, as a reflection of wanting to not waste any more time on such a boring study (akin to an aggressive driver who *speeds up* to not waste any more time on the road).

Method

Participants. Participants were 60 college students (82% female) who received course credit.

Procedure. Participants were told the researchers were studying personality and performance on three vigilance tasks. Different colored “flashes” (actually subliminally presented words) would periodically appear on their computer screens. In the first task, they were asked to press the spacebar every time they saw a flash. In the second task, they were asked to press the spacebar only when they saw a blue flash. In the third task, they were asked to silently count the number of flashes they saw. There were no clocks in the room, and participants removed watches and cell phones (presumably to avoid distractions). Participants were told that the completion of all three tasks could take anywhere from 10 to

25 minutes. In reality, completing all three tasks took exactly 12 minutes—4 minutes per task.

Participants were randomly assigned to either the control condition in which the subliminal primes contained 0% entitled, self-focused words (*WATER, LONG, NUMBER, PEOPLE, WHAT, LITTLE, MANY, SOMETHING, TOGETHER, DIFFERENT, BETWEEN, SAID, EVERY, ANOTHER, ALWAYS*; taken from Bargh & Pietromonaco, 1982) or the entitled condition in which the primes contained 80% entitled, self-focused words (*SPECIAL, BETTER, SUPERIOR, REWARD, IMPORTANT, DESERVE, ME, MINE, NEED, MY, MORE, WANT*, along with the control words *WATER, LONG, NUMBER*). Words were matched according to number of letters ($p = .31$) and frequency of usage in the English language ($p = .92$). After the brief presentation of an X as a fixation point, words were presented on a computer screen at 100 ms, then immediately masked with a row of Xs. Similar techniques and timings have been shown to be valid measures of subliminal priming in prior research (e.g., Bargh & Pietromonaco, 1982; Epley, 2005). Participants then rated how quickly time passed (1 = *time crawled* to 7 = *time passed quickly*) and how interesting the tasks were (1 = *not at all* to 7 = *extremely*).

Next, participants were told to exit the laboratory and walk down the hall where an experimenter, blind to condition, was ostensibly waiting to give them credit. In actuality, the experimenter timed how long it took participants to walk to where he was sitting. A debriefing followed. No participant guessed the hypothesis being tested or reported being suspicious.

Results

There were no main or interactive effects involving gender, so the data from men and women were combined. As predicted, participants primed with 80% entitled words rated time as passing more slowly than did participants primed with 0% entitled words, $M_s = 2.33$ ($SD = 1.32$) and 3.12 ($SD = 1.51$), respectively, $F(1, 58) = 4.63$, $p = .036$, $d = 0.57$, and also rated the tasks as less interesting, $M_s = 1.70$ ($SD = 1.11$) and 2.67 ($SD = 1.54$), respectively, $F(1, 58) = 7.75$, $p = .007$, $d = 0.73$. Furthermore, participants primed with 80% entitled words walked significantly faster when exiting the laboratory than did participants primed with 0% entitled words, $M_s = 12.10$ ($SD = 1.43$) and 13.98 ($SD = 2.54$) seconds, respectively, $F(1, 58) = 11.75$, $p = .001$, $d = 0.90$.

Discussion

Study 3 extends the findings of Study 2 using a subliminal entitlement prime rather than explicit entitled messages, demonstrating that participants need not be aware of entitlement concepts for them to influence their temporal experience. Study 3 also showed that feeling entitled can influence actual time-related behavior. Those primed with 80% entitlement

words appeared in a greater hurry to leave the study than those primed with 0% entitled words, presumably because they felt they had better things to do with their "precious" time. These findings suggest that feeling entitled may prompt the desire to end routine tasks (e.g., completion of the study), quickly receive rewards (e.g., research credit), or engage in more "worthy" endeavors, although future work is clearly needed to tease out each of these specific interpretations.

General Discussion

Most people complete at least some dull and routine tasks every day. Yet certain people seem better able to handle routine tasks than others: Our colleague to the left constantly grumbles at his to-do list whereas the one to the right checks them off with a smile. Indeed, although time is constant, the psychological perception of time is influenced by a variety of factors (see Bluedorn, 2002, and Klein, 2007, for general reviews). So why do dull moments seem to last for an eternity for some, whereas for others there are no dull moments?

Results of these studies suggest that psychological entitlement—the "stable and pervasive sense that one deserves more and is entitled to more than others" (Campbell et al., 2004, p. 31)—is one promising answer. Across three independent studies, we confirmed our hypothesis: Dull tasks seem to crawl for people who feel entitled. This time–entitlement link is specific to dull tasks rather than fun tasks (Study 1), it occurs for trait psychological entitlement (Study 1) and for state-induced entitlement (Studies 2 and 3), and it is triggered by supraliminal entitlement primes (Study 2) and by subliminal entitlement primes (Study 3). Entitlement influences estimates of how much time has passed (Studies 1–3), attitudes toward dull tasks (Studies 2–3), and even behavior following completion of a dull task (i.e., walking speed in Study 3). Results further suggest that this time–entitlement link is not confounded by related constructs (Study 1) and that the link is mediated by perceptions of wasted time (Study 2).

Like most resources in life, the resource of time seems more precious to those who feel a sense of entitlement. Dull tasks seem like a particular waste of their time for people who feel entitled, resulting in slower perceptions of how time passes.

Implications

The current three studies comprise the first direct assessment of the link between self-focus (measured by entitlement) and time perception. But why is such a finding important? In a broader sense, we believe the time–entitlement link can provide an important basis for recognizing under what conditions people choose to spend their time on themselves rather than on others. When people feel entitled, they may be less likely to "spend" the valuable resource of time in ways that do not directly benefit the self. Dull tasks extend far beyond

copying letters from a matrix, completing a survey, and counting flashes in vigilance tasks; many consequential time-related interpersonal tasks in life might be perceived as dull, such as volunteering, recycling, and driving. Thus, the direct role of time and differences in temporal perception may be more critical to prosocial group dynamics than previously recognized. For example, low participation in volunteering might partly be explained by differences in perceived "wastes" of time, as determined by a person's individual sense of entitlement. Perhaps a novel way to increase volunteering, then, might be to consider how to curb self-focus in potential volunteers. Similarly, perhaps an individual's sense of entitlement could predict whether he or she is willing to spend time on his or her romantic partner and how committed he or she is to the relationship, given that relationships often entail giving up of one's own time to the partner (e.g., Campbell et al., 2004).

In addition, the fact that perceptions and behavior may be changed in the presence of entitled, self-relevant messages may help to explain concomitant rises in narcissism (Twenge, Konrath, Foster, Campbell, & Bushman, 2008),² agentic traits (Twenge, 1997), self-esteem (Twenge & Campbell, 2001), and positive self-views (Twenge & Campbell, 2008), as well as declining levels of empathy (Konrath, O'Brien, & Hsing, 2011). These are just a few of the potential implications of the present research.

Future Research

Future research should directly examine whether psychological entitlement is indeed related to perceptions of more important dull tasks, such as volunteering, recycling, and driving. Future research should also focus on the types of events entitled people consider to be dull. For example, even if there were exciting volunteer opportunities available, perhaps entitled people would react as if the opportunities lacked any novel or exciting quality.

Future research can also focus on temporal discounting and delayed gratification (e.g., Mischel, Shoda, & Rodriguez, 1989). Are entitled people less able than others to exhibit patience when waiting for longer-term rewards? Tasks requiring patience, restraint, and discipline pervade everyday life (e.g., parenting, obtaining a college degree, earning a black belt in karate). Perhaps psychological entitlement can help explain why some people are less likely than others to devote time and effort into tasks that do not necessarily produce immediate tangible results (see Snow et al., 2001; Watson & Morris, 1991).

Other work might analyze the effect of entitlement on different measurements of the passing of time. For example, does feeling entitled change the concurrent, in situ experience of prospective time (see Block & Zakay, 1997), or only the retrospective memory of temporal events as demonstrated by the current studies? Does feeling entitled predict a person's degree of psychological distance or time orientation

toward the past, present, or future (e.g., Van Boven, Kane, McGraw, & Dale, 2010)? One intriguing follow-up study might examine whether feelings of entitlement and self-related cognitions influence whether an individual views past and future events at an abstract, high construal level or a detailed, low construal level (Liberman & Trope, 2008), thus influencing the positive valence of temporal events and evaluations of life satisfaction (e.g., Sackett et al., 2010). Previous research has also shown that racing thoughts and speedy time perceptions of cognitive tasks increase positive mood and grandiosity (Pronin & Wegner, 2006). Perhaps individual differences in entitlement can help explain under what conditions this “thought speed” produces positive versus negative emotional effects.

In summary, although the current research is the first to show a link between entitlement and time perception, there are many avenues for potentially rich future research. Such work might enhance our understanding of how self-focus interacts with temporal experience to both promote and hinder important dull tasks that may benefit others (e.g., volunteering) and the environment (e.g., recycling).

Conclusion

Time is arguably the most valuable resource that people have, and so not surprisingly our findings demonstrate that those who have a sense of entitlement value this resource more highly than others do. What is surprising, however, is the robustness of this time–entitlement link: the effect remains when controlling for a host of related variables; across trait measurements and state manipulations; across explicit and subliminal primes; and across a range of time-related attitudes, judgments, and behavior.

Ultimately, we all have the same amount of time and the ability to use it as we wish. How we spend this resource might depend on whether we approach dull tasks as the wasted time of Pink Floyd or, to extract a lesson from John Lennon, as time well spent.

Acknowledgments

We thank Kate Reynolds, Phoebe Ellsworth, Sara Konrath, Rowell Huesmann, Anna Linda Hagen, and two anonymous reviewers for their helpful comments on an earlier draft of this article. We also thank Anne Derrenberger, Kathryn Farquhar, Danielle Hicks, and Nick Thomas for their assistance collecting data.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project was partially supported by a National Science Foundation Graduate Research Fellowship awarded to the first author.

Notes

1. Throughout the current article, we focus on time specifically as a *psychological* construct that is influenced by *psychological* variables. However, theories of time and temporal experience abound in other fields and are widely supported by scientific evidence (e.g., for biological clocks and the pacemaker-accumulator or internal clock theories, see Matell & Meck, 2000; for cognitive psychology and the attentional gate theory, see Block & Zakay, 1997; for interval timing and scalar expectancy theory, see Gibbon, 1977; for brain-based clocks and the recent discovery of time-keeping neurons, see Jin, Fujii, & Graybiel, 2009). In contrast to these established models of time as an objective measure, in the present article we refer to time as the malleable, subjective, plastic *psychological perception* of duration—which is different from clock time, biological time, or absolute time (see Droit-Volet & Gil, 2009; Eagleman, 2009). Nonetheless, all of these models—including ours—are complementary to one another and reflect the complex, multifaceted nature of time; thus, although here we refer to only one specific conceptualization of time, we do not mean to neglect extant definitions of time from other perspectives—they are simply not of target interest to the current article.
2. The claim that these trends are rising in society, particularly narcissism, has roused some academic debate. For example, others argue that changes in narcissism are specious because of questionable methods and the fact that such increases are not exhibited by various important demographics (e.g., Trzesniewski, Donnellan, & Robins, 2008); however, these concerns have been addressed directly (Twenge, Konrath, Foster, Campbell, & Bushman, 2008). The current article rests on the widely supported claim that such trends *are* rising, even if the extent of these changes is less decided. Those involved in the debate currently seek some sort of resolution.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Anderson, C., & Galinsky, A. D. (2006). Power, optimism, and risk-taking. *European Journal of Social Psychology*, 36, 511-536.
- Bargh, J., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology*, 71, 230-244.
- Bargh, J., & Morsella, E. (2008). The unconscious mind. *Perspectives on Psychological Science*, 3, 73-79.
- Bargh, J., & Pietromonaco, P. (1982). Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. *Journal of Personality and Social Psychology*, 43, 437-449.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

- Blatchley, B., Rosemary, D., Purvis, A., Slack, J., Thomas, T., Weber, N., & Wiley, C. (2007). Computer use and the perception of time. *North American Journal of Psychology*, 9, 131-143.
- Block, R. A., & Zakay, D. (1997). Prospective and retrospective duration judgments: A meta-analytic review. *Psychonomic Bulletin & Review*, 4, 184-197.
- Bluedorn, A. C. (2002). *The human organization of time*. Stanford, CA: Stanford University Press.
- Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking web sites. *Personality and Social Psychology Bulletin*, 34, 1303-1314.
- Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Personality Assessment*, 83, 29-45.
- Campbell, W. K., Bush, C. P., Brunell, A. B., & Shelton, J. (2005). Understanding the social costs of narcissism: The case of the tragedy of the commons. *Personality and Social Psychology Bulletin*, 31, 1358-1368.
- Csikszentmihalyi, M. (1997). *Flow and the psychology of discovery and invention*. New York, NY: Harper.
- Danckert, J., & Allman, A. (2005). Time flies when you're having fun: Temporal estimation and the experience of boredom. *Brain and Cognition*, 59, 236-245.
- Draaisma, D. (2006). *Why life speeds up as you get older: How memory shapes our past*. Cambridge, UK: Cambridge University Press.
- Droit-Volet, S., & Gil, S. (2009). The time-emotion paradox. *Philosophical Transactions of the Royal Society B*, 364, 1943-1953.
- Eagleman, D. M. (2008). Human time perception and its illusions. *Current Opinion in Neurobiology*, 18, 131-136.
- Eagleman, D. M. (2009). Brain time. In M. Brockman (Ed.), *What's next: Dispatches from the future of science* (pp. 155-169). New York, NY: Vintage.
- Epley, N. (2005). *Science or fiction? Investigating the possibility (and plausibility) of subliminal persuasion. Subliminal perception manual*. Retrieved from <http://www.csic.cornell.edu/201/subliminal/>
- Exline, J. J., Baumeister, R. F., Bushman, B. J., Campbell, W. K., & Finkel, E. J. (2004). Too proud to let go: Narcissistic entitlement as a barrier to forgiveness. *Journal of Personality and Social Psychology*, 87, 894-912.
- Gastorf, J. W. (1980). Time urgency and the Type A behavior pattern. *Journal of Consulting and Clinical Psychology*, 48, 299.
- Gibbon, J. (1977). Scalar expectancy theory and Weber's law in animal timing. *Psychological Review*, 84, 279-288.
- Giles, D. C., & Maltby, J. (2004). The role of media figures in adolescent development: Relations between autonomy, attachment, and interest in celebrities. *Personality and Individual Differences*, 36, 813-822.
- Hancock, P. A., & Rausch, R. (2010). The effects of sex, age, and interval duration on the perception of time. *Acta Psychologica*, 133, 170-179.
- Horton, R. S., Bleau, G., & Drwecki, B. (2006). Parenting narcissus: What are the links between parenting and narcissism? *Journal of Personality*, 74, 345-376.
- Hoyle, R. H., Stephenson, M. T., Palmgreen, P., Lorch, E. P., & Donohew, R. L. (2002). Reliability and validity of a brief measure of sensation seeking. *Personality and Individual Differences*, 32, 401-414.
- Jin, D. Z., Fujii, N., & Graybiel, A. M. (2009). Neural representations of time in cortico-basal ganglia circuits. *PNAS*, 106, 19156-19161.
- Kiley, K. (2005). *Thumbing through the Napoleonic wars: The words of Napoleon and others who may have influenced his methods*. Retrieved from <http://www.napoleon-series.org>
- Klein, S. (2007). *Secret pulse of time: Making sense of life's scarcest commodity*. Cambridge, MA: De Capo.
- Konrath, S., Bushman, B. J., & Campbell, W. K. (2006). Attenuating the link between threatened egotism and aggression. *Psychological Science*, 17, 995-1001.
- Konrath, S., O'Brien, E. H., & Hsing, C. (2011). Changes in dispositional empathy in American college students over time: A meta-analysis. *Personality and Social Psychology Review*, 15, 180-198.
- Levine, R. V. (1997). *A geography of time*. New York, NY: Basic Books.
- Levine, R. V., & Norenzayan, A. (1999). The pace of life in 31 countries. *Journal of Cross-Cultural Psychology*, 30, 178-205.
- Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, 322, 1201-1205.
- Matell, M. S., & Meck, W. H. (2000). Neuropsychological mechanisms of interval timing behavior. *BioEssays*, 22, 94-103.
- Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children. *Science*, 244, 933-938.
- Oakes, J. M., & Rossi, R. H. (2003). The measurement of SES in health research: Current practice and steps toward a new approach. *Social Science and Medicine*, 56, 769-784.
- Pollay, R. (1986). The distorted mirror: Reflections on the unintended consequences of advertising. *Journal of Marketing*, 50, 18-36.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36, 717-731.
- Pronin, E., & Wegner, D. M. (2006). Manic thinking: Independent effects of thought speed and thought content on mood. *Psychological Science*, 17, 807-813.
- Ritchel, M. (2010, June 6). Attached to technology and paying a price. *New York Times*. Available from <http://www.nytimes.com/2010/06/07/technology/07brain.html>
- Sackett, A. M., Nelson, L. D., Meyvis, T., Converse, B. A., & Sackett, A. L. (2010). You're having fun when time flies: The hedonic consequences of subjective time progression. *Psychological Science*, 21, 111-117.
- Sansone, C., Weir, C., Harpster, L., & Morgan, C. (1992). Once a boring task always a boring task? Interest as a self-regulatory

- mechanism. *Journal of Personality and Social Psychology*, 63, 379-390.
- Snow, J. N., Kern, R. M., & Curlette, W. L. (2001). Identifying personality traits associated with attrition in systematic training for effective parenting groups. *Family Journal*, 9, 102-108.
- Terry, P., Doumas, M., Desai, R., & Wing, A. (2009). Dissociations between motor timing, motor coordination, and time perception after the administration of alcohol or caffeine. *Psychopharmacology*, 202, 719-729.
- Trzesniewski, K. H., & Donnellan, M. B. (2010). Rethinking "generation me": A study of cohort effects from 1976-2006. *Perspectives on Psychological Science*, 5, 58-75.
- Trzesniewski, K. H., Donnellan, M. B., & Robins, R. W. (2008). Is "generation me" really more narcissistic than previous generations? *Journal of Personality*, 76, 903-918.
- Twenge, J. M. (1997). Changes in masculine and feminine traits over time: A meta-analysis. *Sex Roles*, 36, 305-325.
- Twenge, J. M. (2006). *Generation me: Why today's young Americans are more confident, assertive, entitled, and more miserable than ever before*. New York, NY: Free Press.
- Twenge, J. M., & Campbell, W. K. (2001). Age and birth cohort differences in self-esteem: A cross-temporal meta-analysis. *Personality and Social Psychology Review*, 5, 321-344.
- Twenge, J. M., & Campbell, W. K. (2008). Increases in positive self-views among high school students: Birth-cohort changes in anticipated performance, self-satisfaction, self-liking, and self-competence. *Psychological Science*, 19, 1082-1086.
- Twenge, J. M., & Campbell, W. K. (2009). *The narcissism epidemic: Living in the age of entitlement*. New York, NY: Simon & Schuster.
- Twenge, J. M., & Campbell, W. K. (2010). Birth cohort differences in the Monitoring the Future dataset and elsewhere. *Perspectives on Psychological Science*, 5, 81-88.
- Twenge, J. M., Catanese, K. R., & Baumeister, R. F. (2003). Social exclusion and the deconstructed state: Time perception, meaninglessness, lethargy, lack of emotion, and self-awareness. *Journal of Personality and Social Psychology*, 85, 409-423.
- Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the narcissistic personality inventory. *Journal of Personality*, 76, 875-902.
- Van Boven, L., Kane, J. A., McGraw, P., & Dale, J. (2010). Feeling close: Emotional intensity reduces perceived psychological distance. *Journal of Personality and Social Psychology*, 98, 872-885.
- Van den Broek, M. D., Bradshaw, C. M., & Szabadi, E. (1992). Performance of impulsive and non-impulsive subjects on two temporal differentiation tasks. *Personality and Individual Differences*, 13, 169-174.
- Vohs, K. D., Mead, N. L., & Goode, M. R. (2008). Merely activating the concept of money changes personal and interpersonal behavior. *Current Directions in Psychological Science*, 17, 208-212.
- Vohs, K. D., & Schmeichel, B. J. (2003). Self-regulation and extended now: Controlling the self alters the subjective experience of time. *Journal of Personality and Social Psychology*, 85, 217-230.
- Watson, P. J., & Morris, R. J. (1991). Narcissism, empathy and social desirability. *Personality and Individual Differences*, 12, 575-579.
- Wearden, J. H., & Penton-Voak, I. S. (1995). Feeling the heat: Body temperature and the rate of subjective time, revisited. *Quarterly Journal of Experimental Psychology B*, 48, 129-141.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77, 1271-1288.
- Zitek, E. M., Jordan, A. H., Monin, B., & Leach, F. R. (2010). Victim entitlement to behave selfishly. *Journal of Personality and Social Psychology*, 98, 245-255.